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Health related quality of life of Indonesian older adults living in community☆

Juanita Juanita, Nurhasanah Nurhasanah, Jufrizal Jufrizal, Dara Febriana*

Department of Gerontological Nursing, Faculty of Nursing, Universitas Syiah Kuala, Indonesia

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Abstract One of the reasons for Indonesia demographic transition is the rising of the older adult population. This situation is followed by the increase of non-communicable or degenerative diseases. Aging process and illness can affect their quality of life, a measure that reflects one's health and well-being status. The purpose of this study was to identify the quality of life of Indonesian older adults living in community. This descriptive study with cross sectional approach was conducted in Aceh, Indonesia and recruited 664 older adults to participated. The sample was taken by using purposive sampling. A demographic questionnaire and the Indonesian version of the SF-36 were used to collect the data. After that, descriptive statistics were used to analyze the demographic data and simple logistic regression was also use to determine the associated factors with the older adults quality of life. Finding showed that the majority of older adults had good quality of life (53.5%) while some had poor quality of life (46.5%). In conclusion, the quality of life of Indonesian older adults living in community has been generally good, which appears to be linked to age, marital status and morbidity. It is recommended that health care providers and caregivers assist older adults in improving their quality of life by participating in activities held by community Integrated Healthcare Center for older adults.

Introduction

Globally, the population of people aged 60 and over is expanding at a greater rate than all other age categories. The fraction of the population beyond a specific age rises as fertility drops and life expectancy grows. This phenomenon is known as population ageing, and it is happening all across the world. This era is expected to continue, and by 2050 it is estimated that their number will reach 2.1

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* Corresponding author.
E-mail address: dara.febriana@unsyiah.ac.id (D. Febriana).

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billion worldwide.[1] Indonesia also experience the same phenomenon, It is estimated that, in 2050, Indonesian older adults will reach 61.7 million; and, the elderly will correspond to 19.2% of the country population.[2]

The increase in the number of older adults will bring both positive and negative impacts to various sectors in life. The positive impacts include the improvement in the health status and productivity of older adults. On the other hand, the negative impacts comprise various health problems among older adults that may lead to disabilities, thus requiring more costs for health services.[3]

The existence of numerous health problems,[4] as well as environmental factors affecting the life of older adults[5] and greatly affect their quality of life.[6] Quality of life is one of the indicators used in assessing and evaluating the health and well-being of older adult.[7] Quality of life can be assessed physically from declining body systems, psychologically from emotions, and externally from social relationships, environment, and interactions with families, neighbors, and the surrounding community.[8]

Older adults will have low quality of life due to a decline in all body systems, making them unable to carry out activities as usual. A study by Soosova[9] found that there was a relationship between increasing age and quality of life, wherein the quality of life became significantly worse on the domains of physical and mental health, autonomy, past-present-future activities, and social participation of older people.

Aceh is Indonesia's westernmost province. It is situated on Sumatra's northern tip, with Banda Aceh as its capital and major city. Aceh, which has been granted special autonomy, is a religiously conservative region and the only Indonesian province to openly practice Sharia.[10] As Indonesia began to gradually become an aging society some of the provinces in Indonesia also experience this demographic transition. The older population in Indonesia, as in all other countries, is not evenly distributed throughout the country and areas with a higher proportion of older persons mostly concentrated in Java island.[11] According to Aceh Population Development Profile population the age group $\geq$ 65 years old increased from 5.05% in 2018 to 5.20% in 2019.[12] Although at this moment Aceh is not included in the top 5 of province with the highest percentages of older population, it is predicted that by 2035 the proportion of older person in Aceh will exceed 20% of the population. Hence, measuring quality of life values among older adults have significant importance for introducing preventive interventions among older adults in a given region. Therefore, the objective of this study was to identify the quality of life of Indonesian older adults living in the community of Aceh Province.

Methods

A community-based, cross-sectional study was conducted in Aceh Province, respondent was selected from Banda Aceh municipality and Aceh Besar District. In accordance with the United Nations' standard for being ''aged'' in both developed and developing countries, this study defined elderly as aged 60 years and older.[11] The eligibility criteria for participants were as follows: (1) aged 60 years or older, (2) six months prior to the survey, the participants must have lived in the survey area, (3) having no severe cognitive impairment, and (4) being physically and mentally sound. A total of 672 elderly individuals were invited for interview. Of these, 667 gave consent to participate in the study; a response rate of 99.2%.

This study had been approved by the Ethical Committee on Health Research, Faculty of Nursing Universitas Syiah Kuala with a reference number of 111068020418. The survey was carried out in accordance with the committee's guidelines. Before obtaining informed consent, participants were made aware of the study's nature, purpose, and potential benefits. Participants were also notified about the length of the interview, their right to withdraw from the study at any time without penalty, and the survey information's confidentiality.

Data were collected between May and August 2019. The instruments for data collection consisted of a demographic questionnaire and the Indonesian version of the SF-36 questionnaire assessing the quality of life of older adults.

The SF-36 is a generic instrument that has become a standard for assessing quality of life. It assesses eight domains of physical and psychological aspects: physical functioning (10 items), role limitations due to physical health issues (4 items), role limitations due to emotional problems (3 items), energy/fatigue (4 items), emotional well-being (5 items), social functioning (2 items), bodily pain (2 items), and general health (5 items). The SF-36 has been translated into a number of languages, including the Indonesian version.[13] The Indonesian version of SF-36 was used in this study and has a good validity at ($r = 0.626$; $p = 0.003$) and reliability value with Cronbach's alpha of 0.79.[14] The RAND 36-Item Health Survey 1.0 methods is used to determine the score. Each subscale score is divided by the number of items in the subscale so that the score ranges from 0 to 100. A higher score indicates that the quality of life is more favorable. Furthermore, a score of $\geq$50 denotes good quality of life.[13,15]

Descriptive statistical analysis was used for the demographic data of the older adults as well as the quality of life. To investigate the relationship between the demographic characteristic and quality of life simple logistic regression was used. Multivariate logistic regression was used to investigate predicting factors of quality of life while adjusting for the effects of other factors. Statistical significance was defined as a p-value of less than .05.

Results

Demography of the respondents

Table 1 presents the background characteristics of the participants. Overall, 188 participants (28.3%) were men, and 476 (71.7%) were women. Of these, the participants were aged 60–69 years (633%). For occupation, most of the participants is not working (53.3%). Majority of the participants (67%) has at least one disease (single morbidity). Regarding to illness duration 78% of the respondent reported that they have been suffering for the disease for less than 5 years.

Table 1 Demographics characteristics of respondents ($n = 667$).

Demographic characteristics	Quality of life		
	N (%)	Good (%)	(%)
Age (years)			
60–69 years old	421 (63.1%)	242 (57.5%)	179 (42.5%)
>70 years old	246 (36.9%)	105 (42.7%)	141 (57.3%)
Gender			
Male	188 (28.2%)	97 (51.6%)	91 (48.4%)
Female	479 (71.8%)	250 (52.2%)	229 (47.8%)
Marital status			
Single	15 (2.2%)	5 (33.3%)	10 (66.7%)
Married	309 (46.3%)	(57%)	133 (43%)
Widow	343 (51.4%)	166 (48.4%)	177 (51.6%)
Occupation			
Not working	358 (53.7%)	173 (48.3%)	185 (51.7%)
Retirement	81 (12, 1%)	46 (56.8%)	35 (43.2%)
Private sector	228 (34.2%)	128 (56.1%)	100 (43.9%)
Morbidity			
No illness	28 (4.2%)	24 (85.7%)	4 (14.3%)
Single morbidity	447 (67.0%)	225 (50.3%)	222 (49.7%)
Multiple morbidity	192 (28.8%)	98 (51%)	94 (49%)
Illness duration			
1–5 years	520 (78.0%)	267 (51.3%)	253 (48.7%)
6–10 years	135 (20.2%)	71 (52.6%)	64 (47.4%)
11–15 years	12 (1.8%)	9 (75%)	3 (25%)

Table 2 Quality of life (QoL) of the older adults ($n = 667$).

Quality of life domains	Mean	SD	Level	
			Poor *n* (%)	Good *n* (%)
Physical health				
Physical functioning	58.5	21.6	200 (30)	467 (70)
Role limitation due to physical health	32.4	36.1	403 (60.4)	264 (39.6)
Bodily pain	57.3	21.2	238 (35.7)	429 (64.3)
General health	50.5	16.3	296 (44.4)	371 (55.6)
Psychosocial health				
Energy	50.7	17.3	288 (43.2)	379 (56.8)
Role limitation due to emotional problems	43.6	40.9	370 (55.5)	297 (44.5)
Social functioning	60.6	20.6	142 (21.3)	525 (78.7)
Emotional well-being	70.2	16.0	79 (11.8)	588 (88.2)
Health change	45.65	24.07	260 (39)	407 (61)
Overall quality of life	52.2	16.6	320 (48)	347 (52)
Overall physical health	49.7	18.5	353 (52.9)	314 (47.1)
Overall mental health	56.3	18.4	288 (43.2)	379 (56.8)

Quality of life of older adults living in the community

As detailed in Table 2, overall quality of life was good among the majority of the older adults (Table 3), with physical health domain scores were lower than psychosocial domain scores. Most older adults reported lowest scores on role limitations due to physical health. Another concern is the general health level that seemed to be at the second lowest score. For psychosocial health, emotional well-being had the highest score, followed by social functioning, and energy. The lowest score was role limitation due to emotional problems.

Table 3 Simple logistic regression examining factors associated quality of life of older adults living in the community ($n = 667$).

Respondent characteristics (quality of life, poor $n = 320$, good $n = 347$)	OR	95% CI	*p-Value*
Age			
60–69	1	1	1
>70	1.16	1.17–2.4	0.00
Gender			
Male	1	1	1
Female	0.83	0.56–1.24	0.38
Marital status			
Single	1	1	1
Married	0.47	0.15–1.45	0.19
Widow	0.18	0.81–1.70	0.37
Occupation			
Not working	1	1	1
Retirement	0.80	0.54–1.18	0.27
Private sector	0.92	0.54–1.57	0.77
Morbidity			
No illness	1	1	1
Single	4.80	1.58–14.8	0.00
Multiple	9.24	0.67–1.40	0.87
Illness duration			
1–5	1	1	1
6–10	0.26	0.06–1.00	0.12
11–15	0.34	0.88–1.34	0.11

Discussion

The results of this study have revealed that as many as 52% of Indonesian older adults generally have good quality of life. This finding indicates that most Indonesian older adults are still capable of carrying out their daily activities independently and they also have a positive perception of health and well-being. The finding here conforms that of a study by Shah, Cristian, Prajapati, Patel, & Sonaliya[16] which found that no older adults hadlower quality of life when living in the community, and most of them (56%) had good quality of life and also most (50%) even had excellent quality of life. Several factors that might contribute to improved quality of life include age, gender, marital status, occupation, morbidity and duration of illness.

Marital status is likely to have an impact on good quality of life. In this study, it was found that 57% of married older adults experienced better quality of life. This finding is also in line with those in several previous studies. Older adults who were married hadincreased quality of life compared to those who were single, divorced, or widowed.[16,17] In addition, research conducted by Uddin, Soivong, Lasuka & Juntasopeepun[18] also revealed that social support had a significant positive effect on quality of life. This aspect is related to marital status and type of family, wherein the majority of the older adults in their study were married (80%) and nearly half of them lived with large families (46.8%). Therefore, these older adults could gain support from their spouses, children and siblings who lived together with them. Understandably, it is better for older adults to have social support as this can prevent them from acquiring loneliness, one of the risk factors that has the potential to reduce health status in older adults.[17]

Further, this current study has also found that 54.8% of male and 53.02% of female older adults had good quality of life. Here, it can be said that there was no difference in the quality of life among older adults in terms of gender. This may have been affected by both men and women in this study having single morbidity and illness duration of 1-5 years. The result of this study, however, do not correspond with those in the research conducted by Lee, Xu, and Wu.[19] Their research found a difference in the quality of life between men and women, in which older men were reported to have better quality of life than older women. Such a difference isperhaps influenced bytheir cultural and social factors. The social status of women is lower than that of men, and besides, women have limited income, limited access to health care, and more household responsibilities, all of which create an obstacle in getting improved quality of life. Hajian-tilaki, Heidari, and Hajian-Tilaki[20] also discovered that the quality of life of older women was quite lower than older men owing to higher rates of chronic disease and disability in women, and that women more often exaggerated their own health conditions than men. Nevertheless, these differences cannot be separated from several factors, such as age, education level, marital status, physical activity, and chronic disease; in other words, demographic data and disease conditions do not fully explain the differences in quality of life in regard to gender.

Further, the result of this study hasshown that 60.1% of young old (60–69 years) had higher quality of life compared to middle old/very old (>70 years) who had lower quality of

life (57.7%). Poorer quality of life associated with age was also found in previous studies. Ćwirlej-Sozańska, Sozański, Wiśniowska-Szurlej, and Wilmowska-Pietruszyńska[21] indicate that older age brings quite a large impact on declined quality of life of older adults, which is highly likely related to chronic diseases suffered by older adults. Chronic disease is significantly lower in the young old than the very old and most of older adults have problems in mobility, activities of daily living, and instrumental activities of daily living. Thus, the longer older adultslack physical movements, the higher the risk of developing disabilities in the long term, further preventing them from living independently.

In this study, it was found that 54.2% of Indonesian older adults with multiple morbidity had better quality of life. This finding, however, does not corroborate that of the study by Pengpid and Peltzer[22] which revealed that multiple morbidity caused decreased scores of quality of life. Yet, the contribution of multiple morbidity to quality of life, especially on psychological and social aspects, has not been significant. In addition, different chronic diseases may affect specific domains of different quality of life. For example, in older adults with mental disorders the impact will not only be on the psychological aspect, but also on the physical aspect of their quality of life.

The results of the study were meaningfull, but there were some limitation especially related to target of population. In this study most of the respondent targeting in general population, it was recommended to included older adults with at least three chronic diseases are considered to have multimorbidity. Studies drawn from broader population of older adults should thus be conducted in the future. Furthermore, the design of our study was cross-sectional, which limits interpretations regarding causality.

This study concludes that the quality of life of Indonesian older adults living in the community has been considerably good as indicated from their ability to perform daily activities as usual and their positive perceptions of health and well-being. Still, support from caregivers and health care providers is necessary to improve their self-care activities. In health care settings, improved quality of life can be achieved by carrying out group activities during Posyandu. Nonetheless, due to several factors that may cause varied impacts on the quality of life of older adults, further research is needed to investigate which predictor factors that can bring some effects on the quality of life of older adults. Therefore, these factors can be a reference for consideration in providing care for older adults to help enhance their quality of life.

Conflict of interest

The authors declare no conflict of interest.

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